

We claim:

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1. A two component developer for use in electrographic printing comprising substantially spherical toner particles and substantially spherical magnetic carrier particles, the toner particles having a radius R_T and the carrier particles having a radius R_C , wherein R_C is between about $1.5R_T$ and about $10R_T$.
2. The developer of claim 1, wherein R_C is between about $2R_T$ and about $5R_T$.
3. A two-component developer for use in electrographic printing comprising substantially spherical toner particles and substantially spherical magnetic carrier particles, the carrier particles having a dielectric constant ϵ_c of at least about 6, the toner particles having a radius R_T and the carrier particles having a radius R_C , wherein
- 10 R_C is between about $1.5R_T$ and about $10R_T$.
4. The developer of claim 3, wherein R_C is between about $2R_T$ and about $5R_T$.
5. The developer of claim 3, wherein the carrier particles have a dielectric constant ϵ_c greater than about 10.
- 15 6. The developer of claim 5, wherein R_C is between about $2R_T$ and about $5R_T$.
7. The developer of claim 3, wherein the carrier particles have a dielectric constant ϵ_c greater than about 100.
8. The developer of claim 7, wherein R_C is between about $2R_T$ to about $5R_T$.
9. The developer of claim 3, wherein the carrier particles have a dielectric constant ϵ_c
- 20 greater than about 298.
10. The developer of claim 9, wherein R_C is between about $2R_T$ to about $5R_T$.
11. A method for producing electrographic images comprising the steps of:
- (a) providing an electrographic printer comprising an imaging member, a toning shell located adjacent the imaging member and defining an external electric field of image development therebetween, and a two-component developer,
- 25 comprising substantially spherical toner particles and substantially spherical magnetic carrier particles, the toner particles having a radius R_T and the carrier particles having a radius R_C , wherein R_C is between about $1.5R_T$ and about $10R_T$; and
- 30 (b) causing developer to move through the external electric field, interacting with an electrostatic image carried on the imaging member.

12. The method of claim 11, wherein R_C is between about $2R_T$ and about $5R_T$.
13. The method of claim 11, wherein the carrier particles have a dielectric constant ϵ_c greater than about 10.
14. The method of claim 13, wherein R_C is between about $2R_T$ and about $5R_T$.
- 5 15. The method of claim 11, wherein the carrier particles have a dielectric constant ϵ_c greater than about 100.
16. The method of claim 15, wherein R_C is between about $2R_T$ to about $5R_T$.
17. The method of claim 11, wherein the carrier particles have a dielectric constant ϵ_c greater than about 298.
- 10 18. The method of claim 17, wherein R_C is between about $2R_T$ to about $5R_T$.
19. The method of claim 11, wherein the external electric field of image development is less than the electric field produced by a uniformly-charged toner particle of charge q and radius R_T .
20. The developer of claim 1, the carrier particles having a size distribution according to the Schulz distribution with z greater than about 6.
- 15 21. The developer of claim 1, the carrier particles having a size distribution according to the Schulz distribution with z greater than about 10.
22. The developer of claim 1, the carrier particles having a size distribution according to the Schulz distribution with z greater than about 50.
- 20 23. The developer of claim 1, the carrier particles having a size distribution according to the Schulz distribution with z greater than about 100.
24. The developer of claim 1, the toner particles having a size distribution according to the Schulz distribution with z greater than about 20.
- 25 25. The developer of claim 1, the toner particles having a size distribution according to the Schulz distribution with z greater than about 30.
26. The developer of claim 1, the toner particles having a size distribution according to the Schulz distribution with z greater than about 50.
27. The developer of claim 1, the toner particles having a size distribution according to the Schulz distribution with z greater than about 100.